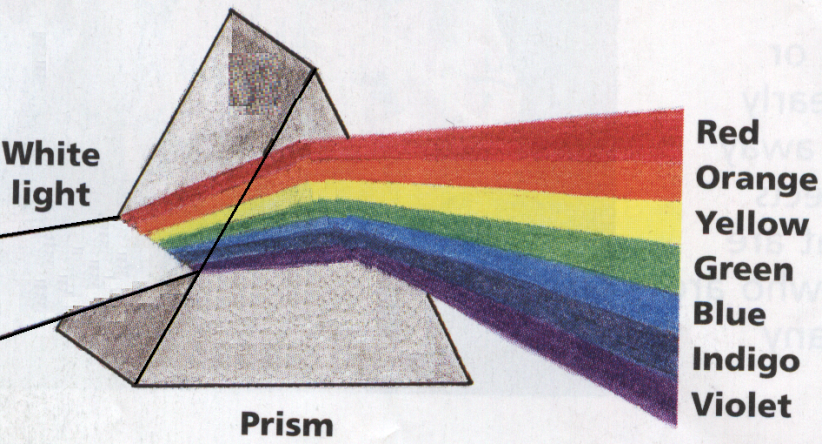
|  |  |  |
| --- | --- | --- |
|  | **Colors** | **شعار-القسم** |
| **Worksheet (9)** |

|  |  |
| --- | --- |
| Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Class: 8 / ……… |
| Date: --/5/2012 |

**A- Dispersion of light**

****

1- Complete the following**:**

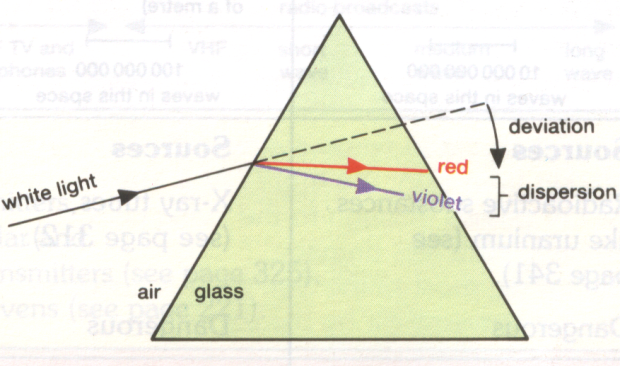
1. When the white light passed through the prism it **separated**

into seven different colors called **visible spectrum.**

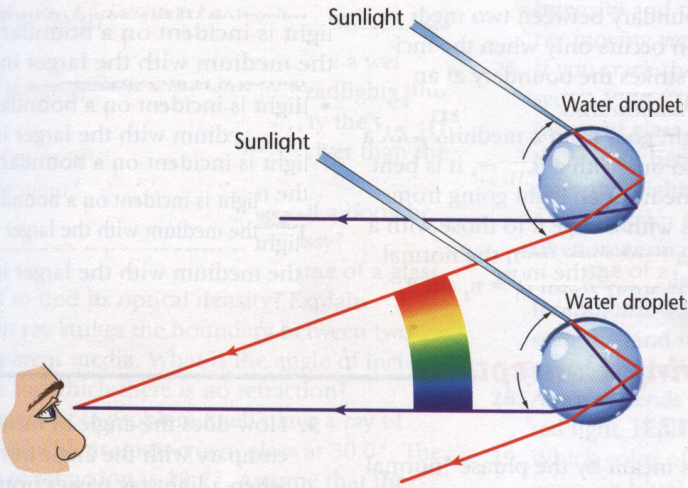
1. White light is really a **mixture** of several colors.
2. The separation of the light into its spectrum is called **dispersion.**
3. The colors of the visible spectrum, in order, are **Red, Orange,**

**Yellow, Green, Blue, Indigo and Violet**

2- Which color among red and blue is the most refracted?



**The blue is the most refracted.**

3- The rainbow is considered example on Dispersion.

1. When does rainbow occur?

**The rainbow is a spectrum formed when sunlight**

**is dispersed by water droplets in the atmosphere**



1. how does rainbow occur in the sky?

**Each droplet produces**

**a complete spectrum, then millions**

**of droplets in the sky produce complete spectrum.**

**B- Colors**

1. A yellow object appears yellow when it is exposed white color and appears black when it is exposed to blue color. Explain Why.

**The object absorbs all colors of the white**

**light except the yellow color which is reflected to our eyes**.

1. Complete the following: When white light shines on

red object, the object **absorbs** all colors of the white light

except the **red color** which is leaving to be reflected

to our eyes and so the object appears **red.**

1. Effect of superimposing the effect of superimposing red, green and blue color filters.

a- What do you see if white light passes through green filter, or blue filter, or red filter?

**We see green color with green filter, red color with red filter and blue color with blue filter**.

1. What will happen when superimposing red, green and blue filter?

**We see white color**

1. Why we use the primary colors ( red, green, blue) in TV and computer screens?

**When mixed together, these three colors of light can create almost any color of light that is visible to human eyes.**

1. a- What is color blindness?

**Color blindness is an inability to see the colors red, green or blue, these colors appear gray.**

**Red–green color-blindness is common among males**

b- List the three types of blindness.

1) **Red-blind:** **Person cannot tell the difference between red and green**.

2) **Green-blind:** **Person cannot see the green color**.

3) **Blue-blind: Person cannot see the difference between the blue and yellow.**